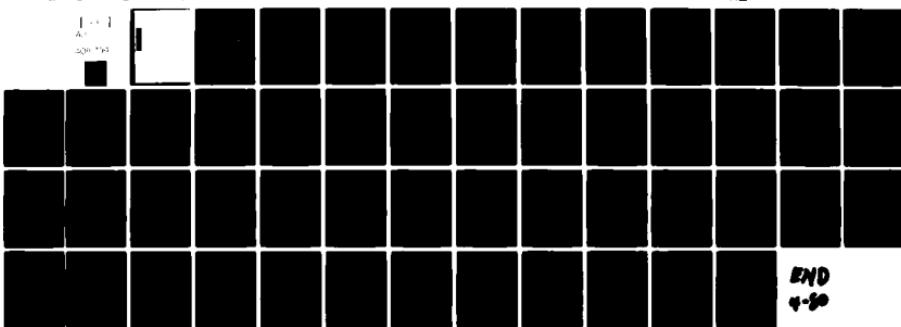


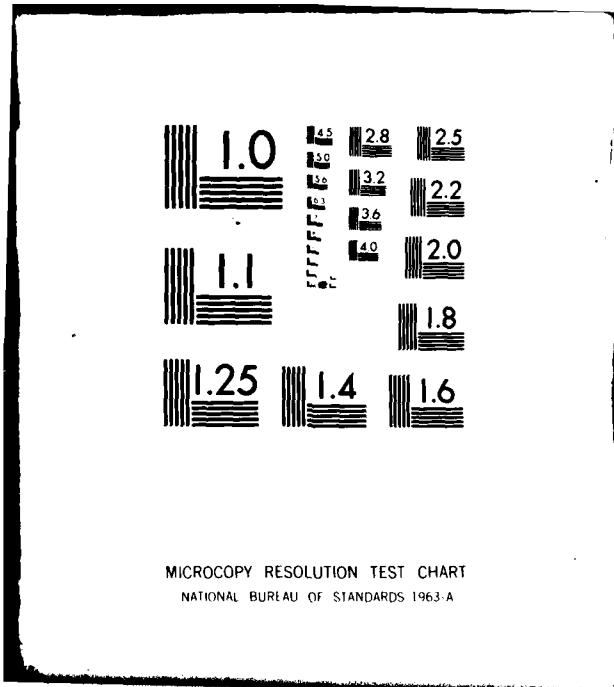
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SURFACE WARFARE JUNIOR OFFICER RETENTION:
THE ASSIGNMENT PROCESS

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A sample of 691 surface warfare junior officers (JOs) was surveyed to identify JO experiences with and attitudes toward assignment process variables and to determine whether these experiences and attitudes related to career intent and/or officer quality. Results showed that JO career intent was positively related to satisfaction with informal notification time for new assignments, obtaining desired assignments,			

evaluation of the assignment process, evaluations of detailers' interpersonal skills, and use of both local superiors and headquarters sources for career guidance. Officer quality was not related to outcomes or evaluations of the assignment process.

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FOREWORD

This research project was initiated in support of a Naval Military Personnel Command (NMPC-4) (then Bureau of Naval Personnel (PERS-4)) request to investigate the factors affecting the career retention of surface warfare junior officers (JOs).

This is the second of a series of reports to be issued on JO retention. The first (NPRDC TR 79-29) provided a research plan designed to explore the factors or areas affecting JO retention. This report focuses on the assignment process, which was identified as one such factor. Subsequent reports will focus on initial assignments, commanding officers, personnel qualification standards (PQS), JOs' spouses, officer quality, and decision processes as determinants of JO career decisions.

During the course of this research, results obtained and recommended actions have been provided to NMPC-41. As a result, the following initiatives based on the recommended actions have been implemented:

1. NMPC-412 and NAVPERSRANDCEN personnel have developed a questionnaire for obtaining feedback from JOs about the effectiveness of the assignment process. This questionnaire is provided to JOs shortly after they have been reassigned. As of August 1979, over 200 of these questionnaires had been completed and returned to NMPC-412.
2. Presentations made by the detailers at the Surface Warfare Officer Department Head School have been changed to emphasize the importance of the department head as a career advisor to JOs.
3. A bi-monthly information letter on current trends and policies is being issued to increase formal communication with JOs.
4. NMPC-412 has set a goal to provide hard-copy orders to JOs at least 4 months prior to their rotation date.
5. The number of detailer field trips has been increased to increase the personal contact between detailers and JOs.
6. To enable detailers to provide more individualized attention to JO career requirements, their number has been increased from 12 to 18. Detailers refer to the results of this study when conversing with JOs, initiate more contacts with them, and respond more quickly to their requests.

Since the above initiatives were taken some time ago, an investigation should be made to determine whether they have affected JO satisfaction with the assignment process. Since such satisfaction is significantly related to career intent, any improvement therein should affect JO retention.

Appreciation is expressed to CAPT J. F. Addams (NMPC-41), CDR F. Julian (NMPC-412), and the officers of the Surface Warfare Junior Officer Assignment Branch (NMPC-412) for their support and assistance, as well as to those officers who participated in the study.

DONALD F. PARKER
Commanding Officer

Introduction and Background

The purpose of this study was to examine community-based research for retention and career intent of junior officers (JOs) in the Navy. The Naval Surface Warfare Center's Personnel Research and Development Center is conducting a study on factors influencing JO retention. The first report issued under this study provided background information and a research plan designed to explore the factors or areas affecting JO retention. Under this plan, retention was to be measured using expressed career intent and officer quality, using self-reported fitness report data applied to a multiple-regression equation.

Purpose

The purposes of this study were to identify JO experiences with and attitudes toward assignment process variables (e.g., assigned location, amount of notification time) and to determine whether these experiences and attitudes related to career intent and/or officer quality.

Approach

A questionnaire, which was developed as part of the research plan, was mailed in November 1978 to a sample of 691 surface warfare JOs, LT and below, who had not yet served as a department head aboard ship. Responses to items describing experiences with and attitudes toward assignment process variables were analyzed. In cases where a large number of items assessed a certain area, responses were factor analyzed to reduce the number of variables to a reasonable number. Finally, a correlation analysis was performed on many relevant variables, including career intent and officer quality.

Results

1. Officer quality may be satisfactorily assessed using the measure adopted for this study.
2. Most JOs receive assignments they requested on their preference card or, if not, find their assignments to be nonetheless acceptable.
3. JOs view location as the single most important assignment outcome.
4. The typical amount of prior notification of new assignments—2 months or less—is considered inadequate by JOs.
5. JOs were critical of the assignment process itself but not necessarily of the actual outcomes. They rated detailers significantly lower in their interpersonal skills than in their formal job knowledge.
6. JOs use local superiors (e.g., department head, XO, CO) as sources for career guidance more frequently than they do headquarter sources (e.g., detailer, Joint Summary, URL Career Planning Guidebook).
7. JOs prefer methods of contacting their detailer that allow for greater two-way communications (i.e., phone calls, personal visits).

2. Officer's career was not significantly impacted with regard to the continuation of his professional growth.
3. JO career status was significantly affected by the assignment process. JOs stated that the continuation of their professional growth was negatively impacted by the assignment process.

Conclusion

1. Although most JOs receive satisfactory assignments, the assignment process itself, including interactions with detailers and the timing of assignment notifications, has a negative impact on JO career decisions.
2. The assignment process is not sensitive to officer quality as measured by assignment process outcomes and evaluations.
3. JOs seek and use those methods for career guidance that maximize positive two-way interpersonal interactions.

Recommendations

1. Increase the training and formal responsibility of the department head for assisting the JO with his career decisions.
2. Enhance detailing effectiveness by requiring detailers to (a) develop interpersonal skills, (b) initiate contacts with JOs more frequently, and (c) document their oral communications and promises.
3. Establish policy and procedures for priority detailing of exceptionally qualified JOs.
4. Make formal career information sources such as the Officer Personnel Newsletter and the Billet Summary more readily available to JOs.
5. Establish an attainable, mandatory standard requiring notification of JOs of new assignment at least 3 months prior to their projected rotation date.

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INTRODUCTION

Problem

The surface warfare community must retain approximately 500 junior officers (JOs) each year to satisfy second sea tour manpower requirements. This community is experiencing increased difficulty, however, in meeting these requirements. For example, in FY78, its retention goal of 472 officers was missed by 67 officers or 14 percent of the goal. In FY79, its goal of 448 officers was missed by 121 or 29 percent. FY80 projections indicate a comparable shortfall.

In addition to problems associated with numerical losses, downward retention trends may lead to other negative effects. First, the overall quality of the remaining officer force may be lowered, either because of the loss of higher quality officers or the increased augmentation of those who would not have been accepted under more favorable circumstances. Second, a shortage of officers increases the difficulty in managing the inventory of available officers. Finally, unacceptable officer losses may indicate generalized attitudinal and operational problems that could impact negatively on operational readiness.

A number of options are available to compensate for current and projected shortfalls of surface warfare JOs. Short-term options include (1) extending release from active duty (RAD) dates, (2) increasing the augmentation of reserve officers, and (3) increasing tour lengths. Long-term solutions include (1) increasing the number of new accessions, and (2) increasing the percentage of officers who desire to pursue a Navy career. All of these options, except for the last, address the problem indirectly. Further, they all have negative consequences that might further aggravate the problem.

Background

This is the second in a series of reports addressing the surface warfare JO retention problem. The first (Holzbach, 1979) provided background information and described three phases of the preliminary work required before a research plan designed to be responsive to the basic factors or areas affecting JO retention could be developed.

In the first phase, which was aimed at identifying these basic factors or areas, relevant studies were reviewed, and a sample of surface warfare JOs was interviewed. Some of the major areas identified included JO assignments and the processes involved in obtaining them, JO professional development, and career counseling.

An important consideration in any study of retention is the manner in which retention is measured. The official Navy measure of retention is based on an officer's minimum service requirement (MSR); officers who are still on active duty 2 years after they reach their MSR are considered to be career officers. Using expressed career intent as the measure of retention would be more advantageous in the current study of retention, however, primarily because it would circumvent the time lag associated with actual retention behavior. Therefore, in the second preliminary phase, relevant studies were reviewed to determine whether expressed intent is ultimately related to actual behavior at the MSR + 2 point. Results showed that there is ample evidence to support the notion that the two are related, in both the civilian (Kraut, 1975) and military sectors (Alley & Gould, 1975; Shenk, 1972).

It is not only necessary to assess determinants of career intent, but also to determine how this intent is related to the quality of the officer force. For example, if officers who

express the least desire to remain in the Navy are also the better performers, the retention problem becomes much more serious. Thus, in the third phase, an attempt was made to develop a measure of officer quality based on officer self-report data. In this study, three detailers used information obtained from officer data cards and fitness reports to evaluate the overall quality of each officer from a random sample of YG74 officers nearing the end of their first sea tour. Results of a number of stepwise multiple regression equations (cross-validated $R = .84$) run to maximize prediction of detailer judgments of officer quality showed that the following variables are most predictive of such judgments:

1. Average officer evaluation score over the three most recent fitness reports (block 51).
2. Average number of officers rated higher than the officer being rated over the three most recent fitness reports (block 52).
3. Percentage of times an officer is recommended for early promotion over the last six fitness reports (block 61).

Thus, the multiple regression based on these variables was selected as the basis for obtaining a measure of officer quality.

Information obtained from these studies was used to develop a research plan. Research questions to guide the research approach and analyses were identified, and a questionnaire was developed and pretested as a means for obtaining answers to these questions.

Purpose

The purposes of this study were to identify JO experiences with and attitudes toward assignment process variables (e.g., assigned location, amount of notification time) and to determine whether these experiences and attitudes related to career intent and/or officer quality.

APPROACH

Assignment Process

The assignment process is an area of both individual and official concern. The individual seeks to obtain assignments that will satisfy a number of personal preferences, such as desired location, type of billet, and type of activity. The Navy is concerned not only with satisfying these individual preferences, but also with meeting critical manpower requirements. Since junior officers (JOs) typically feel that the assignment process is representative of the larger Navy system, their reactions to and experiences within the process can be expected to affect their attitudes toward a Navy career.

The assignment process begins when the JO informs his detailer of his assignment preferences up to 12 months before his scheduled rotation date. Following a certain amount of interaction between the detailer and the JO, a billet is selected, orders are written, and the JO is informed about his reassignment billet and date. Although the mechanics of this process appear to be relatively simple and straightforward, the significance of the outcome to the JO, the nature and quality of the interactions between

the JO and his detailer, and the complexities of satisfying Navy, career, and individual needs for a large number of individuals combine to produce a sensitive and complex process affecting JO retention. A more complete discussion of the assignment process is provided by Holzbach (1979).

Survey Questionnaire

The development and pretest of the survey questionnaire was described in Holzbach (1979). This questionnaire, which was provided as an appendix to the previous report, consists of seven sections: (1) Background, (2) Professional Qualifications, (3) Career Intentions, (4) Assignment History and Evaluation, (5) Assignment Process, (6) Decision Process, and (7) Supplemental Questions. Those sections/items of interest to this particular effort are described below, and provided in Appendix A.

1. Section II--Professional Qualifications. As indicated previously, it was decided to use self-reported fitness report data applied in a multiple-regression equation as the measure of officer quality. Thus, Item 6 of Section II asked respondents to supply necessary information.

2. Section III--Career Intentions. This section comprised only one item--the Military Career Commitment Gradient, a 50-point scale developed by Bridges (1969) at the U.S. Military Academy to measure career intent. Validation of this scale showed that retention behavior is significantly related to career intent measures obtained before commissioning (Butler, 1973; Butler & Bridges, 1976). Therefore, it was selected as the measure of career intent for this study.

3. Section V--Assignment Process. Items included in this section assessed JO experiences with and attitudes toward most of the assignment process variables. These variables include the following:

a. Respondents' satisfaction with current and future assignments in terms of location, type of billet, and type of activity; and the importance placed by respondents on these three assignment outcomes (Items 8-11).

b. Amount of informal and formal notification time received prior to projected rotation date (PRD), and respondents' satisfaction with amount of notification times (Items 1 and 6).

c. Respondents' evaluation of the assignment process (Item 12).

d. Respondents' evaluations of their current detailer (Item 16) and detailers in general (Item 18).

e. Frequency of respondents' interactions with detailers and effectiveness of methods used in such interactions (Items 13 and 15).

f. Respondents' overall satisfaction with assignments received (Item 18).

g. Respondents' attendance at and evaluation of detailer field trips (Items 19 and 20).

4. Section VI--Decision Process. Four items from this section pertained to this effort. They addressed the following assessment process variables: Respondents' timing of decision-making process (i.e., to obtain desired assignment), use of information sources,

knowledge of available billets, and evaluation of appropriateness of billets received (Items 1, 8, 9, and 10 respectively).

Sample and Procedure

The officer history tape was searched to identify those officers who had a surface warfare designator (111X or 116X), were a LT or below, and had never been assigned to the Department Head School. From the total of 6392 such officers identified, 800 were randomly selected to participate in this study. From this group, 109 officers who had not been assigned to their first tour (i.e., they were currently assigned to the Surface Warfare Officer School basic course or to nuclear power training) were deleted, leaving a sample of 691 officers (11% of the total population).

In early November 1978, about 2 weeks prior to the questionnaire administration, a letter was sent to each officer in the sample. It notified them that they would be receiving a questionnaire seeking information on their Navy experiences and career concerns, and requested their support and participation. The actual questionnaire was mailed to sample members on 20 November; and a reminder letter, on 21 December. All mailings were sent directly to the individual. In the case of those officers ($N = 127$) who had Projected Rotation Dates (PRDs) that were within 3 months of the questionnaire administration date, however, address labels were stamped: ADDRESSEE OR DESIGNATED RELIEF. This was done to ensure that the sample would remain random across time remaining in tour, while picking up those officers who had very recently reported to their duty station. Data collection was continued until the end of February 1979, when the return rate had dropped off.

Analyses

Responses to items assessing experiences with and attitudes toward assignment process variables were analyzed. In cases where a large number of items assessed a smaller number of concepts, principal component factor analyses were performed to identify the items that described each concept. Scales for each concept were then constructed from the relevant items. The scale for one concept, assignment agreement, was calculated by weighting the congruence between the outcomes of the assignment received and the preferred assignment as expressed on the individual's preference card. The scale for a second concept, assignment search timing, was created by using three items that described the timing of specific assignment search activities. Correlation coefficients were calculated for all variables, including career intent and officer quality.

Hypotheses

It was hypothesized that:

1. JOs whose assignments more closely agree with their preference card choices will be more satisfied with those assignments.
2. The longer the period of prior notification, the more satisfaction with the amount of notification time.
3. Change of geographical location will affect satisfaction with amount of prior notification time.

4. More higher quality officers than lower quality officers will (a) receive assignments that more closely agree with their preference card choices, (b) receive more timely notification of assignment actions, and (c) be more satisfied with the assignment process.

5. JOs will evaluate methods of contacting their detailer that provide opportunity for greater two-way communication more highly than they will evaluate other methods.

6. JOs who adapt a more proactive approach to career planning will (a) receive assignments that more closely agree with their preference card choice, (b) receive more timely notification of assignments, and (c) be more satisfied with the assignment process.

Hypotheses 1 and 2 reflect logical extensions of individual desires to have their expectations satisfied and to minimize the uncertainty associated with reassessments. Hypothesis 3 is responsive to the increased uncertainty associated with geographical moves and the requirement for earlier decision making prior to the move. Hypothesis 4 is based on the assumption that, in a system in which conflicting demands are present, priorities would be established that would favor more valued resources (i.e., higher quality officers). Hypothesis 5 is based on the premise that, in an uncertain situation, such as is found in assignment actions, two-way communication would be desirable because of its ability to rapidly clarify potential conflicts and reduce associated uncertainty. Finally, Hypothesis 6 is based on the premise that, in an uncertain, ambiguous situation such as occurs during the assignment process, officers who actively seek to reduce that uncertainty would be more successful.

RESULTS

Response Rate

Table 1, which presents sample and return rate statistics, shows that 27 of the 691 questionnaires could not be delivered, leaving a potential sample of 664 officers. Of this group, 359 officers returned their questionnaire, providing a response rate of 54 percent. This response rate was comparable across rank and duty type, but was somewhat lower for officers assigned to cruisers (39%) and for questionnaires stamped with the designated relief option (29%). Data for 47 JOs, who either returned questionnaires with a significant amount of missing data or were commissioned prior to 1973-1974 (YG-73), were deleted from further analyses. Thus, the final sample consisted of 312 officers, providing a return rate of 47 percent of delivered questionnaires.

Officer Quality (Questionnaire Section II, Item 6)

Seventy-six percent ($N = 237$) of the final sample of officers provided the necessary fitness report information needed to compute the measure of officer quality. For the remaining 24 percent, missing information was obtained from official records when available. When officers who voluntarily provided fitness report information were compared with those for whom required information was obtained from official records, no significant difference in quality was found between the two groups ($t(266) = 1.16$). Further, when self-reported fitness report information was compared with that obtained from official records for a randomly selected sample of 23 officers, no significant difference was found ($t(22) = 1.09$). The correlation between the two sets of quality scores was .98. Minor variations were found for 11 (48%) of the 23 officers; when data for these officers were analyzed separately, however, the results were the same ($t(10) = 1.10$, $r = .95$). These findings indicate that the measure of officer quality used in this study is a valid measure, is not limited only to responses of higher quality officers, and is not biased by inflation of self-reported data.

Table 1
Sample and Return Rates

Sample	Number Mailed	Number Delivered	Returned		Usable	
			N	% of Delivered	N	% of Delivered
<u>Rank</u>						
ENS	170	162	81	50	73	45
LTJG	313	307	161	52	156	51
LT	208	195	117	60	83	43
Total	691	664	359		312	
<u>Duty Type</u>						
Sea	495	480	247	51	238	50
Shore	196	184	112	61	74	40
Total	691	664	359		312	
<u>Ship Type</u>						
Amphibious	81	80	48	60	47	59
Carrier	53	50	25	50	25	50
Cruiser	85	82	32	39	28	34
Destroyer	202	196	105	54	102	52
Service	65	63	32	51	31	49
Other	9	9	5	56	5	56
Total	495	480	247		238	
<u>Response Type</u>						
Designated						
Relief	127	115	33	29	27	23
Addressee	564	549	326	59	285	52
Total	691	664	359	54	312	47

Career Intent (Section III)

Respondents were asked to indicate, on the 50-point Military Career Commitment Gradient (Figure 1), the degree to which they were certain that they would continue an active military career until mandatory retirement. In analyzing responses to this item, it was considered that those who responded on the scale in the range from 1 to 23 were "leavers," those who responded in the range from 24 to 27 were "undecided," and those who responded in the range from 28 to 50 were "stayers." As shown in Figure 1, the leaver group is bounded on the upper end by the scale label, "I am not sure but probably will resign . . . as an officer," and the stayer group is bounded on the lower end by the label, "I probably will remain . . . as an officer."

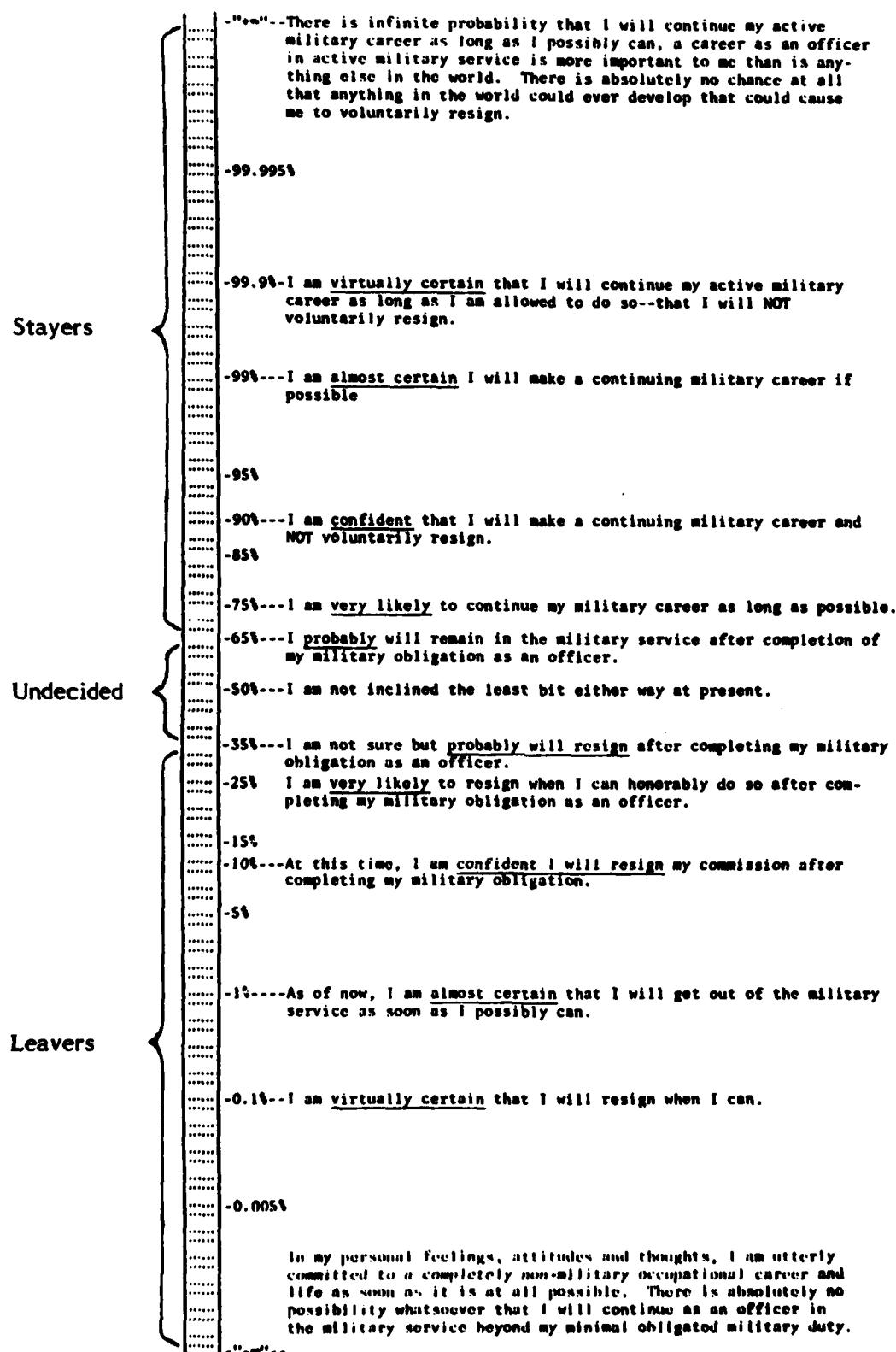


Figure 1. Military Career Commitment Gradient
 (From Section 2 of the questionnaire--
 Career Intention).

Table 2, which provides sample statistics for the career intent measure, shows that the overall mean was 24.32, which is at the lower end of the "undecided" range. This mean does not differ significantly by commissioning source, rank, or year group. When looked at in terms of the three career intent groups, however, it appears that officers from USNA and NROTC-S, the two primary commissioning sources for regular officers, are underrepresented in the "stayers" category, while those from the other three sources are overrepresented. No differences were found for rank and year group when tested with career intent groups.

Table 2
Respondents' Career Intent

Sample	\bar{X}	SD	N	Percent in Career Intent Group		
				Leavers (N = 125)	Undecided (N = 68)	Stayers (N = 112)
<u>Total</u>	24.32	9.13	305 ^a	41.0	22.3	36.7
<u>Commissioning Source</u>						
USNA	23.26	7.88	84	52.4	19.0	28.6
NROTC-S	22.93	8.14	89	40.4	31.5	28.1
NROTC-C	25.50	12.17	12	33.3	16.7	50.0
OCS	25.06	9.21	69	43.5	13.0	43.5
NESEP	27.58	11.18	38	18.4	26.3	55.3
	$F(4, 287) = 2.25$				$\chi^2(8) = 22.82*$	
<u>Rank</u>						
ENS	24.36	7.92	61	42.6	24.6	32.8
LTJC	24.12	8.22	163	42.9	23.9	33.2
LT	24.86	11.49	80	35.0	17.5	47.5
	$F(2, 301) = .18$				$\chi^2(4) = 5.40$	
<u>Year Group</u>						
73	23.12	11.18	26	34.6	15.4	50.0
74	23.90	12.19	48	39.6	16.7	43.7
75	23.82	9.41	77	46.8	22.1	31.1
76	24.60	7.17	78	39.7	28.2	32.1
77	24.85	7.44	65	41.5	24.6	33.9
78	27.10	9.34	10	30.0	10.0	60.0
	$F(5, 298) = .40$				$\chi^2(10) = 9.16$	

^aSeven questionnaires had missing data.

*p < .01.

Assignment Process Variables

Assignment Outcomes (Section V)

During the assignment process, officers indicate their assignment preferences to their detailers in terms of three outcomes: (1) location (e.g., Norfolk, San Diego), (2) type of billet (e.g., weapons, main propulsion assistant, instructor), and (3) type of activity (e.g., CVAN, DDG, NROTC unit). They not only indicate the importance they place on these three outcomes, but also their first, second, and third choices for assignments within them.

In the questionnaire, respondents were asked to indicate how well their current and future (if any) assignments agreed with their preferences in terms of these three outcomes (Items 8 and 10), and how they had ranked their importance on their preference cards (Items 9 and 11). Results showed that, overall, the officers sampled were very well satisfied in terms of actual outcomes. As shown in Table 3, of the 163 officers who reported on their current assignment, less than 10 percent indicated that it was not acceptable in terms of location, billet, or activity. Further, of the 34 officers who reported on their future assignment, about 3 percent indicated that it was not acceptable in those terms. Significant differences were found among ratings of importance of these characteristics ($\chi^2(4) = 43.57$, $p < .001$). Fifty-two percent judged location as most important; 28 percent, billet; and 20 percent, activity.

As indicated in the previous section, a correlation matrix was developed for many variables used in the analyses. The overall matrix, showing sample sizes, is provided in Appendix B; correlations of assignment outcome variables are provided in Table 4. As shown, overall satisfaction with assignments received was significantly related to the level of congruence between the assignment requested and what was received/anticipated for all three current assignment outcomes and for location and type of billet of future assignments. Career intent was related to the level of congruence between requested/received assignments for location of both current and future assignments; and officer quality, for location and type of billet of future assignments.

Also, higher quality officers, relative to lower quality officers, placed greater importance on the type of billet they had received and less importance on the type of activity to which they had been assigned. Finally, overall assignment agreement (current) was significantly related to career intent and to overall satisfaction with assignments received. Scores for the "overall assignment agreement" variable, which was actually a measure of how well officer assignment requests were met in terms of location, billet, and activity and the relative importance of these characteristics, were computed using the point system depicted in Table 5. In this system, assignments that were among the individuals' three choices for assignment location, billet, and activity, as well as those that reflect the characteristic they listed as most important, received proportionally more points. Scores could range from a maximum of 39 for perfect agreement across all characteristics to a low of 6 for a totally unacceptable assignment.

Table 3
**Agreement Between Assignments Received and
 Requested (Preference Card Choices)**

Assignment Outcome	Outcome		
	Among Three Choices (%)	Not Among Choices	
		Acceptable (%)	Not Acceptable (%)
Current Assignment^a			
Location	71.0	21.6	7.4
Billet	63.9	22.7	8.0
Activity	69.3	20.9	9.8
$(\chi^2(4) = 307.81, p < .001)$			
Future Assignment^b			
Location	79.4	17.6	3.0
Billet	82.4	14.7	2.9
Activity	79.4	17.6	3.0
$(\chi^2(4) = 104.69, p < .001)$			

^aBased on responses of 163 officers.

^bBased on responses of 34 officers.

Table 4
Correlations of Assignment Outcome Variables

Variable ^a	Career Intent (1)	Officer Quality (2)	Overall Satisfaction With Assignments Received (21)
Assignment Agreement (Current):			
Location (7)	.15*	.03	.35**
Billet (8)	.12	.03	.39**
Activity (9)	.12	.12	.47**
Importance (Current Assignment):			
Location (10)	-.06	-.06	-.06
Billet (11)	.05	.21*	.07
Activity (12)	.03	-.15*	.01
Overall Assignment Agreement (Current) (19):			
	.15*	.08	.50**
Assignment Agreement (Future):			
Location (13)	.29*	.33*	.41*
Billet (14)	.19	.60**	.38*
Activity (15)	.16	.29	.28
Importance (Future Assignment):			
Location (16)	-.01	-.17	-.06
Billet (17)	.27	.24	.23
Activity (18)	-.19	-.09	-.15

Note. The assignment agreement variables represent the level of congruence between the preferred assignment and the assignment received or anticipated.

^aNos. in parentheses are variable nos. in correlation matrix (Table B-1).

*p < .05.

**p < .001.

Table 5
Preference Card/Assignment Agreement Point Table

Preference Card Importance	Assignment Received					
	Among Preference Card Choices			Not Among Preference Card Choices		
	1	2	3	Acceptable	Not Acceptable	
1	15	14	12	7		1
2	13	10	8	5		2
3	11	9	6	4		3

Informal and Formal Notification Times (Section V)

Respondents were asked to indicate, in terms of months relative to their projected rotation date (PRD), when they had been informally (i.e., by a phone call or letter from their detailer) and formally (i.e., receipt of orders) notified of their next assignment (Item 1). They were also asked whether their permanent change in station (PCS) involved a change in geographic location (Item 2), and how satisfied they were with the amount of informal and formal notification times (Item 6). Results showed that the amount of informal notification time was typically about 2 months before PRD (mean = 3.5 mos, mode = 2 mos., and median = 2.7 mos); and the amount of formal notification time, less than 2 months before PRD (mean = 2.2 mos., mode = 1 mo., and median = 1.4 mo.).

Table 6, which provides correlations of notification times variables, shows that actual notification times were significantly related to satisfaction with those times. The more advance warning officers received, the more satisfied they were. Also, if an officer was satisfied with informal notification time, he was also likely to be satisfied with formal notification time. Finally, satisfaction with informal notification time was significantly related to career intent and to officer quality. Higher quality officers tended to be less satisfied with the amount of informal notification they received than were lower quality officers.

To determine whether amount of notification times was related to a PCS to a different geographical location, analyses of variance (ANOVA) were performed, using satisfaction with the amount of notification times as the dependent variables. Notification time was divided into two groups--2 months or less and 3-6 months--based on an assessment of the notification time/satisfaction relationship. It was expected that satisfaction would be lower when a PCS to another location was involved, given comparable notification times. As shown in Table 7, significant effects were found for both informal and formal notification times. No significant effects were found, however, for either PCS moves or the interaction term.

Table 6
Correlations of Notification Times Variables

Variable	1	2	3	4	5	6
1. Career Intent	--					
2. Officer Quality	.15*	--				
3. Informal Notification Time	.12	-.05	--			
4. Formal Notification Time	-.02	-.01	.57**	--		
5. Satisfaction With Informal Notification Time	.17*	-.18*	.56**	.25**	--	
6. Satisfaction With Formal Notification Time	.08	-.09	.57**	.30**	.88**	--

*p < .05

**p < .001.

Table 7
**Results of ANOVA Relating Satisfaction with
 Notification Time to PCS Move**

Source	Informal Notification		Formal Notification	
	df	F	df	F
Notification Time	1,133	63.84**	1,145	29.97**
PCS Move	1,133	.13	1,145	.21
Notification Time x PCS Move	1,133	1.39	1,145	1.43

**p < .001.

Evaluation of Assignment Process (Section V)

Respondents were presented with a list of statements about experiences with the assignment process and asked to indicate which best described their experiences (Item 12). A score of 1 was assigned to the most negative statement ("Tends to be a completely hopeless situation. No amount of effort . . . is successful in influencing the system."); and a score of 5, to the most positive ("Tends to run smoothly--my detailer locates an acceptable billet relatively quickly."). The average response was 3.34, which, when interpreted in concert with the other results, indicates that, although most officers experience some degree of difficulty and unpleasantness with the assignment process, they ultimately receive a satisfactory or acceptable assignment.

The correlations for the evaluation of the assignment process are provided in Table 8. As shown, this variable was significantly related to career intent, informal notification time, satisfaction with informal and formal notification times, overall agreement with current assignment, and overall satisfaction with assignments received. It is interesting to note that assignment process evaluation was not related to officer quality.

Table 8
Correlations of Evaluation of Assignment Process Variable

Variable	Evaluation of Assignment Process (23)
Career Intent (1)	.20*
Officer Quality (2)	.03
Informal Notification Time (3)	.19*
Formal Notification Time (4)	.14
Satisfaction with Informal Notification Time (5)	.43**
Satisfaction with Formal Notification Time (6)	.45**
Overall Assignment Agreement (Current) (19)	.51**
Overall Satisfaction with Assignments Received (21)	.55**

Note. Nos. in parentheses refer to correlation matrix variables (Table B-1).

*p < .05

**p < .001.

Information Sources (Section VI)

Respondents were presented with a list of 11 information sources and asked to indicate, on a 5-point scale ranging from "Never" to "Consistently," how often they turned to these sources for "career information and counsel" (Item 8). A principal components factor analysis, using varimax rotation, was performed on responses to this item. As shown in Table 9, four factors emerged: (1) local superiors (sources available to JOs on a daily basis), (2) headquarters sources, primarily in formal printed form, (3) informal

Table 9
Summary of Factor Analysis of Items on
Usage of Information Sources

Factor/Components	Factor Loading ^a				h^2
	1	2	3	4	
Local Superiors					
CO	.78	--	--	--	.65
XO	.83	--	--	--	.72
Dept. Head	.60	--	--	--	.53
Other Senior Officers	.53	--	--	--	.31
Headquarters Sources					
Detailers	--	.52	--	--	.50
Officer Personal Newsletter (OPN)	--	.78	--	--	.69
Career Guidebook	--	.71	--	--	.63
Billet Summary	--	.74	--	--	.55
Informal Printed Materials					
Navy Times	--	--	.81	--	.71
Public Media	--	--	.83	--	.71
JO's Peers					
Other JOs	--	--	--	.93	.87
Eigenvalue	3.08	1.65	1.09	1.04	—
% of Variance	28.00	15.00	9.90	9.50	—

Note. Based on responses of 286 officers.

^aFactor loadings less than .40 are not reported.

printed materials, and (4) the JO's peers. An ANOVA ($F(3,855) = 186.47$, $p < .001$) and subsequent Newman-Keuls post-hoc comparisons of usage frequency of these four sources ($p < .001$) showed that each was significantly different from the others, with the order of usage being peers, local superiors, headquarters sources, and informal printed materials.

Only the first two of these four sources--local superiors and headquarters sources---accounting for 43 percent of the variance, were included in the correlation matrix. Correlations for these two information sources are provided in Table 10. As shown, JOs who reported greater use of local superiors were more likely to express greater career intent, be a higher quality officer, be more aware of available billets, and feel that their assigned billets were appropriate. On the other hand, those who reported greater use of headquarters sources were less likely to have their assignment choices satisfied and to give a positive assessment of the evaluation process.

Evaluation of Current Detailer (Section V)

Respondents were asked to evaluate their current detailer in 10 areas (e.g., knowledge of current policy trends), using a 5-point scale ranging from "very negative" to "very positive" (Item 16). Also, they were asked to indicate how satisfied they were with their interaction with detailers, as well as with detailers' availability, continuity, responsiveness, and credibility (Item 18).

A principal components factor analysis, using varimax rotation, was performed on responses to the first question. As shown in Table 11, two factors emerged, accounting for 71.8 percent of the variance: formal job knowledge and interpersonal skills. Detailers were rated significantly higher on their formal job knowledge than on their interpersonal skills ($t(79) = 6.68$, $p < .001$). When responses to the second question were similarly factor analyzed, only one factor emerged, accounting for 67.6 percent of the variance--overall satisfaction with detailers (Table 12). This factor was significantly related, at the .001 level, to both detailer formal job knowledge ($r = .55$) and interpersonal skills ($r = .70$).

Table 13 provides correlations of the three detailer evaluation variables. As shown, JOs who highly evaluated their detailer's interpersonal skills were more likely to express a higher career intent, be more satisfied with both informal and formal notification times, receive assignments they requested, and be satisfied with both those assignments and the assignment process. JOs who highly evaluated their detailer's formal job knowledge were also more likely to receive requested assignments and to be satisfied with them and the assignment process. Overall satisfaction with detailers was significantly related to career intent, satisfaction with informal and formal notification times, overall assignment agreement (current), satisfaction with assignments received, appropriateness of billets received, and evaluation of the assignment process. It is interesting to note that none of the detailer evaluation variables were related to officer quality. Further, although detailer interpersonal skills were positively related to career intent and satisfaction of notification times, this was not the case with detailer formal job knowledge.

Table 10
Correlations of Information Sources Variables

Factors/Components	Local Superiors (35)	Headquarters Sources (36)
Career Intent (1)	.23**	.11*
Officer Quality (2)	.25**	.16*
Overall Assignment Agreement (Current) (19)	.00	-.14*
Knowledge of Available Billets (20)	.18**	.04
Appropriateness of Billets Received (22)	.15*	.10
Evaluation of Assignment Process (23)	-.05	-.16*

Note. Nos. in parentheses refer to correlation matrix variables (Table B-1).

* $p < .05$.

** $p < .001$.

Table 11

Summary of Factor Analysis of Items on
Current Detailer Evaluations

Factor/Component	Factor Loading ^a		
	1	2	h^2
<u>Formal Job Knowledge</u>			
Knowledge of current policy trends	--	.82	.73
Knowledge of available billets	.41	.79	.80
Knowledge of billet requirements	--	.86	.78
<u>Interpersonal Skills</u>			
Knowledge of individual desires	.79	--	.67
Knowledge of previous communication	.74	--	.60
Can trust what he says	.79	--	.73
Looks out for my best interests	.85	--	.78
Willing to listen to problems, desires, needs	.76	--	.67
Eigenvalue	4.67	1.08	--
% of Variance	58.30	13.50	--

Note. Based on responses of 79 officers.

^aFactor loadings of less than .40 are not reported.

Table 12
Summary of Factor Analysis of Items on
Satisfaction with Detailers (N = 161)

Item	Factor Loading	h^2
Interactions with Detailers	.87	.75
Availability of Detailers	.78	.60
Continuity of Detailers	.71	.50
Responsiveness of Detailers	.88	.77
Credibility of Detailers	.87	.76
Eigenvalue	3.38	
% of Variance	67.6	

Note. Based on responses of 161 officers.

Table 13
Correlations of Detailer Evaluation Variables

Variable	Detailer Evaluation		Overall Satisfaction With Detailers (33)
	Interpersonal Relations (30)	Formal Job Knowledge (31)	
Career intent (1)	.33**	.00	.27**
Officer quality (2)	.04	-.06	.03
Satisfaction with informal notification time (5)	.42**	.16	.35**
Satisfaction with formal notification time (6)	.31**	.10	.31**
Overall assignment agreement (current) (19)	.30*	.25*	.37**
Knowledge of available billets (20)	.12	.11	.11
Overall satisfaction with assign- ments received (21)	.31**	.19*	.46**
Appropriateness of billets received (22)	.12	.10	.18*
Evaluation of assignment process (23)	.55**	.32*	.60**
Use of local superiors (35)	.08	-.03	.06
Use of headquarters sources (36)	.09	.05	-.01

Note. Nos. in parentheses refer to correlation matrix variables (Table B-1).

*p < .05 (one tail)

**p < .001 (one tail)

Effectiveness of Methods Used in Detailer Interactions (Section V)

Respondents were asked how often they interacted with their detailer within the PRD year and otherwise (Item 13). Also, they were asked to indicate the number of times they used the preference card, letter, telephone, and personal visit in such interactions and to evaluate these methods, using a 5-point scale ranging from "very ineffective" to "very effective" (Item 15). An ANOVA ($F(3,432) = 116.39$, $p < .001$) and subsequent Newman-Keuls post-hoc comparisons of responses revealed that there was a significant difference in the frequency of usage of these methods. A significant difference was also found for JO evaluations of these methods ($F(3,162) = 19.01$, $p < .001$). Telephone calls are used significantly more often than preference cards, which, in turn, are used significantly more often than letters or personal visits. The latter two methods did not differ as to usage

frequency. It is interesting to note that, although personal visits were not used as frequently as were telephone contacts, their effectiveness was evaluated significantly more favorably than telephone contacts (Newman-Keuls post-hoc comparisons), apparently because they maximize the opportunity for two-way interaction. Telephone contacts, in turn, were evaluated significantly more favorably than were either letters or preference cards.

Table 14 provides correlations of detailer interaction method variables. As shown, career intent, but not officer quality, was significantly related to effectiveness of preference cards, letters, and telephone calls. Officers who evaluated the preference card more favorably were more likely than the others to receive assignments they requested, be aware of available billets, be satisfied with assignments received, feel that those assignments were appropriate, and feel positively toward the assessment process. They also reported fewer contacts with their detailer within the year proceeding their PRD. Officers who evaluated telephone calls more favorably were more likely than the others to be satisfied with informal and formal notification times.

Officer Initiatives (Sections V and VI)

It was hypothesized that officers who took a greater interest and initiative in career-related actions would be more successful in the assignment process and would evaluate it more favorably. Five variables were used to assess the level of officer initiative. The first was a measure of an officer's assignment search timing. To obtain this information, respondents were asked when, in terms of months prior to their PRD, they started thinking about their next assignment, seeking advice from others, and communicating with their detailer (Section VI, Item 1). The other four variables have been discussed previously: an officer's usage of both local superiors and headquarters sources of information, and the frequency of contacts made within a year of PRD and during other periods.

The correlations for the variables measuring officer initiative are provided in Table 15. As shown, officers who exhibited more initiative were of higher quality and expressed a higher level of career intent. In general, however, officer initiative in the assignment process, as measured by the five variables, was not systematically related to satisfactory assignment outcomes or positive attitudes toward the assignment process. In fact, the frequency of detailer contacts during the PRD year appears to be precipitated by a negative experience with the assignment process.

Detailer Field Trip Evaluation (Section V)

One method used by detailers to educate officers in the assignment process is to conduct field trips in which detailers meet with JOs to explain the process and attempt to resolve problems that may arise. Thus, to determine how respondents felt about these meetings, they were asked whether or not they had had the opportunity to attend them (Item 19) and, if so, to rate them on five different areas (e.g., their usefulness) (Item 20). A principal components factor analysis, using varimax rotation, of ratings assigned to these areas yielded only one factor, accounting for 61 percent of the variance (see Table 16). Thus, these ratings were summed to obtain a measure of detailer field trip evaluation. Table 17, which provides the correlations of this measure, shows that it is positively associated with career intent, overall satisfaction with assignments received, evaluation of the assignment process, effectiveness of the preference card, satisfaction with detailer's formal job knowledge and interpersonal skills, and overall satisfaction with detailers.

Table 14
Correlations of Detailer Interaction Method Variables

Variable	Effectiveness of:			
	Preference Cards (26)	Letters (27)	Telephone Calls (28)	Personal Visits (29)
Career intent (1)	.14*	.18*	.18*	.07
Officer quality (2)	-.04	.11	-.07	.04
Satisfaction with informal notification time (5)	.23*	.14	.36**	.27*
Satisfaction with formal notification time (6)	.19*	.07	.26**	.26*
Overall assignment agreement (current) (19)	.39**	.15	.16*	.17
Knowledge of available billets (20)	.24**	.15	-.03	.31*
Overall satisfaction with assignments received (21)	.44**	.30**	.22**	.26*
Appropriateness of billets received (22)	.28**	.19*	.12	.18
Evaluation of assignment process (23)	.48**	.40**	.41**	.35**
Detailer interaction--within PRD year (24)	-.24**	-.07	-.08	-.08

Note. Nos. in parentheses refer to correlation matrix variables (Table B-1).

*p < .05

**p < .001.

Table 15
Correlations of Officer Initiative Variables

Variable	Assignment Search Timing (32)	Use of Information Sources		Detailer Interactions	
		Local Superiors (35)	Headquarters Sources (36)	PRD Year (24)	Within Otherwise (25)
Career intent	.07	.23**	.11*	.15*	.03
Officer quality	.11*	.25**	.16*	.19*	-.05
Informal notification time (3)	.02	-.02	-.14*	-.10	.01
Formal notification time (4)	.04	.03	-.08	.00	.05
Satisfaction with informal notification time (5)	.02	-.04	-.23*	.22*	.03
Satisfaction with formal notification time (6)	.02	-.04	-.24*	.25**	.04
Overall assignment agreement (current) (19)	.07	.00	-.14*	-.16	.07
Knowledge of available billets (20)	.05	.18**	.04	-.08	.05
Overall satisfaction with assignments received (21)	.09	.06	-.06	-.08	-.10
Appropriateness of assignments received (22)	.16*	.15*	.10	.13	.02
Evaluation of assignment process (23)	.05	-.05	-.16*	-.20*	-.01
Detailer evaluation--formal job knowledge (31)	.06	-.03	.05	-.14	.09
Detailer evaluation--interpersonal skills (30)	-.08	.08	.09	-.05	.18*
Overall satisfaction with detailers (33)	-.07	.06	-.01	-.17*	.04

Note. Nos. in parentheses refer to correlation matrix variables (Table B-1).

*p < .05 (one tail)

**p < .001 (one tail)

Table 16
Summary of Factor Analysis of Items on
Detailer Field Trip Evaluation

Item	Factor Loading	h^2
Clarification of assignment policies	.82	.67
Appreciation of SWO career paths	.75	.56
Resolution of assignment problems	.75	.56
Conducted in honest/open manner	.70	.49
Useful and beneficial meeting	.87	.76
Eigenvalue	3.04	--
% of Variance	60.80	--

Note. Based on responses of 100 officers.

Table 17
Correlations of Detailer Field Trip Evaluation Variable

Variable	Detailer Field Trip Evaluation (34)
Career intent (1)	.21*
Officer quality (2)	.14
Satisfaction with informal notification time (5)	.04
Satisfaction with formal notification time (6)	-.01
Overall assignment agreement (current) (19)	.05
Knowledge of available billets (20)	.17
Overall satisfaction with assignments received (21)	.23*
Appropriateness of billets received (22)	.14
Evaluation of assignment process (23)	.22*
Effectiveness of preference card (26)	.22*
Detailer evaluation--formal job knowledge (31)	.51**
Detailer evaluation--interpersonal skills (30)	.46**
Assignment search timing (32)	-.02
Overall satisfaction with detailers (33)	.55**

Note. Nos. in parentheses refer to those correlation matrix variables (Table B-1).

* $p < .05$

** $p < .001$.

The impact of detailer field trip meetings was evaluated by comparing questionnaire responses of officers who had attended a meeting with those of officers who had not. No significant differences were found on the variables reported in Table 17. Those JOs who had attended a detailer field trip meeting, however, indicated that they had a clearer idea of their future as a surface warfare officer over a longer period than did those who had not attended ($t(117) = 1.92$).

DISCUSSION AND CONCLUSIONS

Although mean career intent did not differ appreciably across commissioning sources (Table 2), separating junior officers (JOs) into three career intent groups (stayers, leavers, undecided) did reveal an important trend: JOs who had been commissioned through the Naval Academy or the NROTC scholarship program were less likely to be stayers than were those who had been commissioned through other sources. This is noteworthy since, traditionally, USNA and NROTC-S graduates are expected to be among the highest in expressed career intent. The fact that they are not should be taken as a potential danger signal. Further, the surprisingly strong showing of Officer Candidate School (OCS) graduates in the stayers group should be closely considered. The data indicate that OCS graduates fall into two rather distinct groups--those who intend to stay and those who intend to leave. The percentage of OCS officers who are uncertain regarding their naval career is relatively small.

This study demonstrated that officer quality may be satisfactorily assessed using self-reported fitness report data as input to a multiple-regression equation. Some of the essential features of this measure are listed below:

1. Its reliability is quite good. In other words, the probability that a measure obtained using this method will agree with detailer judgments is equal to the probability that judgments of any two detailers will agree. The agreement among detailers is usually quite high.
2. It provides a wide range of quality scores, even though fitness reports are typically inflated with little discernable variance in scores.
3. Its validity, as shown in cross-validation, is very high.

The study also showed that:

1. Most officers are willing to provide fitness report information. Those who do not provide this information do not differ appreciably in quality from those who do.
2. Errors in self-reported fitness report data are not systematic; that is, officers do not intentionally inflate their scores. Errors that do occur have only a marginal effect on quality scores.

Most surface warfare JOs receive satisfactory assignments that are included among their preference card choices. Location, which JOs judged as the single most important assignment outcome, was the only one that was significantly related with career intent. The fact that officer quality was not significantly related with attaining assignments included among preference card choices implies that the assignment process is not sufficiently sensitive to the quality of JOs when assignment decisions are made. Because so many officers received assignments they requested, however, there may not have been

sufficient variance available to adequately demonstrate a relationship between officer quality and assignment outcomes.

JOs were not satisfied with the amount of advance notification given concerning their next assignment. The data seem to indicate that JOs are most concerned with the amount of informal notification time they receive. This is understandable since being assigned to other areas means they must arrange for the sale of their home and perform other necessary activities. Once they receive informal notification of their next assignment, their uncertainty is considerably reduced.

Although most officers reported receiving satisfactory assignments, the assignment process was not evaluated favorably. Essentially, the final outcome of the assignment process is usually acceptable but how it is achieved is criticized. This is supported by the finding that detailers' formal job knowledge was rated fairly high, but their interpersonal skills were criticized. Receipt of requested assignments and satisfaction with those assignments were related with satisfaction with the assignment process. Given the relatively high satisfaction with assignments received and relatively low satisfaction with the process itself (i.e., notification time, detailer interpersonal skills), it appears that this area offers the greatest opportunity for overall improvement.

The need for improvements to the interpersonal aspects of the assignment process is further emphasized by considering the information sources used by JOs when making assignment decisions. It is reasonable to assume that headquarters sources (e.g., detailer, billet summary, etc.) would have more accurate and complete information on available billets than would local superiors (e.g., department head, XO, CO). The fact that perceived knowledge of available billets was related to usage of local superiors but not to usage of headquarters sources, however, indicates that JOs have little trust and confidence in the ability of headquarters sources in helping to make assignment decisions. Indeed, those officers who most frequently used such sources were less likely to receive the assignment they had requested and gave lower ratings to the assignment process.

It is significant that, in seeking information for career guidance, JOs considered their CO as a local superior rather than as a headquarters source. Official sources (e.g., "Commanding Officer's Addendum to the Unrestricted Line Officer Career Guidebook") cite the importance of COs in the area of JO career counseling and place them in an official position as an extension of headquarters. COs are described as being contacted for career information about as often as detailers; both of these sources are contacted much less often, however, than the department head.

Finally, evaluations of detailers' interpersonal skills and overall satisfaction with detailers were more highly related with outcome measures such as career intent, satisfaction with notification time and assignments, and overall satisfaction with the assignment process than were evaluations of detailers' formal job knowledge. It appears that what counts most is how the detailers relate to JOs--not the extent of their job-related knowledge. This is not to say that job knowledge is not important, but, rather, that interpersonal skills should receive greater emphasis.

The hypothesis predicting that officers who exhibited greater initiative in the assignment process would have a more favorable evaluation of the assignment process, and would experience more favorable outcomes in terms of assignments and notification time was not generally supported. Although officers who showed the greatest initiative tended to be of higher quality, there was no systematic significant effect on assignment process satisfaction or outcomes. This finding is surprising since it appears that JOs who are most concerned with their next assignment and take appropriate actions should do

better than the typical officer. Perhaps the assignment process as currently set up is not adaptable to officers who significantly deviate from established parameters.

One of the more surprising findings from this study was that officer quality did not appear to be systematically related with assignment process outcomes or satisfaction. Again it may be that the assignment process is currently so severely constrained that it cannot be sufficiently sensitive to officer quality.

In a study of this nature, it is important to carefully clarify its limitations and the extent of its generalizability. The study is based on officer perceptions. Therefore, to the extent that these perceptions are based on fact, the findings become more critical. If they are not based on fact, however, the issue becomes one of determining why such perceptions are formed and what can be done to change them. Another consideration that must be made is that this study does not directly lead to statements of causality. For example, the relationship between career intent and JO evaluation of the assignment process should not be strictly interpreted as meaning that improving the assignment process would increase career intent. The plausibility of such a statement, considering the data available in this study, must be based on an insightful analysis of the entire results and of the assignment process itself. It is likely, however, that improving the assignment process would lead to an incremental increase in career intent. Perhaps this increase would not be as great as a simple interpretation of the statistics would indicate, but it would be an increase nonetheless. Finally, these data should not be generalized to samples beyond predepartment head surface warfare JOs since their attitudes and experiences may differ appreciably from those of more senior officers.

RECOMMENDATIONS

A number of problem areas may be identified toward which corrective actions should be initiated. Because specific actions must be evaluated and implemented by considering Navy organizational constraints and priorities, the recommendations offered are general in nature. If recommendations are found to be redundant with current practices, the operation of those practices should be evaluated for their effectiveness or other solutions should be sought.

1. Department Head. Since JOs perceive the department head as a key source of career information, the present informal role of the department head should be made more formal by providing him with necessary training and guidance.

2. Detailers. Although most officers reported receiving satisfactory assignments, the process of attaining those assignments and the nature of detailer/constituent interactions were severely criticized. Therefore, the following suggestions are offered to address this significant negative response:

a. Increase the frequency of detailer-initiated telephone contacts with JOs concerning assignment preferences and individual needs.

b. Initiate a practice of contacting JOs 1 year prior to their PRD to provide career counseling and prepare them for long-range assignment considerations (e.g., Department Head School application, PG and augmentation boards, etc.).

c. Develop or enhance procedures intended to provide a permanent record of communications with JOs.

d. Provide documentation to JOs concerning the content of oral communications to ensure that no misunderstanding occurs over "promises" made.

e. Develop procedures that will ease the problems associated with detailer turnover to ensure that continuity is maintained, and that previous communications and commitments are recorded and honored.

f. Investigate the feasibility of providing prospective detailers with communications and counseling skills training as part of their initial orientation.

g. Ensure that timely responses are made to all requests and commitments.

h. Identify a group of JOs for which priority detailing would be initiated. For this group, every effort should be made to satisfy all assignment preferences and to provide very early notification of assignment actions.

3. Career Information Sources. The availability of the Officer Personnel Newsletter and the Billet Summary should be increased, since these sources were rated highest among the printed media available to JOs concerning their careers, and lowest in terms of availability. About three out of four JOs feel they are either only somewhat or not at all knowledgeable about billets for which they would be competitive. Thus, there is an obvious need for timely and accurate information.

4. Notification of new assignments. JOs should be notified of their selected assignment no less than 3 months prior to their PRD. In cases where delays beyond the 3-month minimum are unavoidable, the officers concerned should be given explicit reasons for the delays. Attaining the 3-month objective may require an intensive review of the procedures involved in identifying available billets, selecting and notifying officers, and processing orders.

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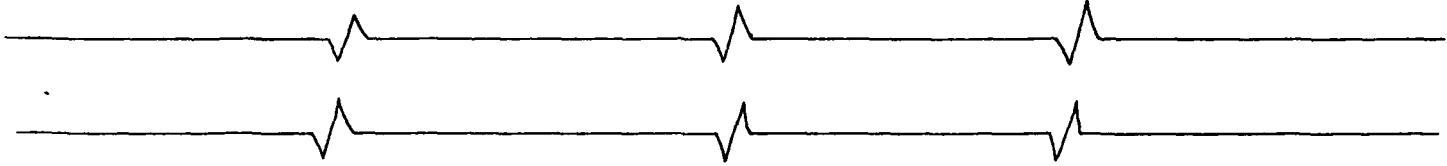
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Shenk, F. Predictability of expressed career intent (AFHRL Tech. Rep. 75-25). Lackland AFB: Air Force Human Resources Laboratory, March 1972.

APPENDIX A

EXCERPTS FROM SURFACE WARFARE JUNIOR OFFICER CAREER QUESTIONNAIRE

II. PROFESSIONAL QUALIFICATIONS



6. Please complete the following table by providing the indicated information from your last six fitness reports, starting with your most recent one. Please circle your position on the Evaluation and Summary rankings. The first two lines are filled in as examples.

Date (block 13)	Evaluation and Summary (blocks 51 & 52)									EARLY PROMOTION		
	TOP				TYPICALLY EFFECTIVE		BOTTOM			(block 62) RECMD	(block 66) RANKING	(block 65) NUM RECMD
	1%	5%	10%	30%	50%	50%	30%	MARG	UNSAT			
5/78	2	1	1		1					YES	3	of 3
11/77	1	3		1				1		NO		of
												of
												of
												of
												of
												of

III. CAREER INTENTIONS

MCCOG

This item concerns the intensity of your desire for a career as an officer in the military service. It consists of (1) a question and (2) a response gradient extending continuously between two defined extreme values.

Selected areas on the gradient are described, both verbally and in terms of probabilities, to provide you with some meaningful, reference points and to provide for more precision in scalar interpretation.

At selected scalar points, percentages beside the gradient indicate the judged probability (number of judged chances in 100) of one voluntarily continuing his active military career until mandatory retirement. Note, however, you definitely should not limit yourself to the few points for which descriptions are provided.

Due to the procedures for analyzing this item, it is very important that you follow these instructions precisely.

INSTRUCTIONS

Step one. Read carefully the statement of the question in the box at the bottom of this page.

Step two. At the bottom of the gradient, read the definition of that extreme point on the gradient.

Step three. At the top of the gradient, read the definition of that extreme point.

Step four. At the middle of the gradient, the 50% point, read the description of that point.

Step five. Locate the general area on the gradient which seems to correspond best with your current commitment; thoughtfully read the descriptions of the near points and decide on the exact point on the gradient that most closely represents your current level of commitment.

Step six. Blacken the response space between the nearest pair of dotted lines; thus, if the point you initially selected is about midway between two response spaces, mark the response space which most nearly reflects your degree of commitment.

QUESTION:

To what degree are you now certain that you will continue an active military career until mandatory retirement?

MILITARY CAREER COMMITMENT GRADIENT
A MILITARY CAREER VS. A NON-MILITARY CAREER

"--" - There is infinite probability that I will continue my active military career as long as I possibly can, a career as an officer in active military service is more important to me than is anything else in the world. There is absolutely no chance at all that anything in the world could ever develop that could cause me to voluntarily resign.

-99.995%

-99.9% - I am virtually certain that I will continue my active military career as long as I am allowed to do so--that I will NOT voluntarily resign.

-99% -- I am almost certain I will make a continuing military career if possible

-95%

-90% -- I am confident that I will make a continuing military career and NOT voluntarily resign.

-85%

-75% -- I am very likely to continue my military career as long as possible.

-65% -- I probably will remain in the military service after completion of my military obligation as an officer.

-50% -- I am not inclined the least bit either way at present.

-35% -- I am not sure but probably will resign after completing my military obligation as an officer.

-25% I am very likely to resign when I can honorably do so after completing my military obligation as an officer.

-15%

-10% -- At this time, I am confident I will resign my commission after completing my military obligation.

-5%

-1% -- As of now, I am almost certain that I will get out of the military service as soon as I possibly can.

-0.1% -- I am virtually certain that I will resign when I can.

-0.005%

In my personal feelings, attitudes and thoughts, I am utterly committed to a completely non-military occupational career and life as soon as it is at all possible. There is absolutely no possibility whatsoever that I will continue as an officer in the military service beyond my minimal obligated military duty.

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V. ASSIGNMENT PROCESS

1. For your most recent experience with a new assignment (PCS change) how much time (in months) relative to your PRD did you receive--
 - a. Informal notification: _____ months prior to PRD, or
_____ months after PRD
 - b. Formal notification (orders): _____ months prior to PRD, or
_____ months after PRD
2. When did this change of assignment occur? _____
Month _____ Year _____
3. Was this a sea or shore assignment? SEA SHORE
4. Did the assignment involve a change in geographic locations? NO YES
5. Was this assignment to the Navy Postgraduate School or SWO Department Head Course? NO YES
6. How satisfactory was the amount of notification time you received for--

	<u>More than enough</u>	<u>Just about right</u>	<u>Cut it too close</u>	<u>Totally unsat</u>
a. Informal notification	()	()	()	()
b. Formal notification	()	()	()	()

7. If you answered "cut it too close" or "totally unsatisfactory" to Question 6, were there special circumstances that may have affected the timing of your notification?

() No
() Yes - awaiting results of a board action
() Yes - assignment of relief
() Yes - availability of appropriate billet
() Yes - other _____

8. How well does your current assignment agree with your desires in the following areas, as expressed on your preference card? (check one)

	CHOICE			<u>Acceptable</u>	<u>Not Acceptable</u>
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>		
a. Location	()	()	()	()	()
b. Type billet	()	()	()	()	()
c. Type activity	()	()	()	()	()

9. How did you rank the following in importance to you?

a. Location _____
b. Type billet _____
c. Type activity _____

10. If you now have orders to a new billet, or have been informally notified of your next billet, how well does it agree with your desires in the following areas, as expressed on your preference card? (check one)

	CHOICE			<u>Acceptable</u>	<u>Not Acceptable</u>
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>		
a. Location	()	()	()	()	()
b. Type billet	()	()	()	()	()
c. Type activity	()	()	()	()	()

11. How did you rank the following in importance to you?

a. Location _____
b. Type billet _____
c. Type activity _____

12. Which of the following statements best describes your experiences with obtaining new assignments?

- () Tends to run smoothly--my detailer locates an acceptable billet relatively quickly.
- () Tends to run smoothly but there is a certain amount of uncertainty and discussion with my detailer along the way.
- () Tends to be a very difficult, unhappy experience. However, I eventually receive a satisfactory or acceptable assignment.
- () Tends to be a frustrating, anxiety producing experience. Only through the intervention of senior officers or extreme efforts on my part do I ultimately receive a satisfactory or acceptable assignment.
- () Tends to be a completely hopeless situation. No amount of effort on my part or by others is successful in influencing the system.

13. About how often do you (or do you plan to) interact with your detailer?

- a. About _____ times within a year of PRD.
- b. About _____ times a year otherwise.

14. What is the purpose of these interactions? (check one or more)

- () To keep in touch
- () To learn more about recent trends and policies
- () To seek career advice
- () To determine status of requests, letters, etc.
- () Other _____

15. How effective do you feel are the following ways of interacting with your detailer?

	Number times used	Very Ineffective	Ineffective	So-So	Effective	Very Effective
a. Preference card	_____	()	()	()	()	()
b. Letter	_____	()	()	()	()	()
c. Telephone	_____	()	()	()	()	()
d. Personal visit	_____	()	()	()	()	()

16. What is your evaluation of your current detailer in the following areas?

	<u>Don't Know</u>	<u>Very Negative</u>	<u>Negative</u>	<u>Neutral</u>	<u>Positive</u>	<u>Very Positive</u>
a. Knowledge of current policy trends	<input type="checkbox"/>	()	()	()	()	()
b. Knowledge of available billets	<input type="checkbox"/>	()	()	()	()	()
c. Knowledge of billet requirements	<input type="checkbox"/>	()	()	()	()	()
d. Knowledge of your career development needs	<input type="checkbox"/>	()	()	()	()	()
e. Knowledge of your individual desires	<input type="checkbox"/>	()	()	()	()	()
f. Knowledge of previous communications	<input type="checkbox"/>	()	()	()	()	()
g. Can trust what he says	<input type="checkbox"/>	()	()	()	()	()
h. Looks out for my best interests	<input type="checkbox"/>	()	()	()	()	()
i. Willing to listen to my problems, desires, needs, etc.	<input type="checkbox"/>	()	()	()	()	()
j. Provides useful career counseling	<input type="checkbox"/>	()	()	()	()	()

17. When was the last time you communicated with your current detailer?

Month _____ Year _____

18. Overall, how satisfied are you with:

	<u>Very Unsatisfied</u>	<u>Unsatisfied</u>	<u>Neutral</u>	<u>Satisfied</u>	<u>Very Satisfied</u>
a. Assignments received	()	()	()	()	()
b. Interaction with detailers	()	()	()	()	()
c. Availability of detailers	()	()	()	()	()
d. Continuity of detailers	()	()	()	()	()
e. Responsiveness of detailers	()	()	()	()	()
f. Credibility of detailers	()	()	()	()	()

19. Have you ever attended a detailer field trip meeting at your command?

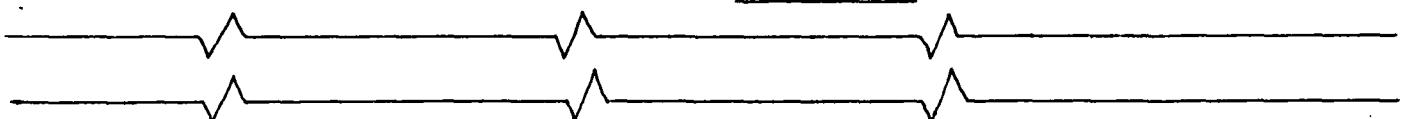
() No - Meeting has never been scheduled.
 () No - I was not available when trip was scheduled
 () No - I chose not to attend a scheduled meeting
 () Yes - _____ months prior to my PRD

20. If you have attended a detailer field trip meeting, to what extent--

	<u>N/A</u>	<u>Very Little</u>	<u>Little</u>	<u>Some</u>	<u>Great</u>	<u>Very Great</u>
a. did it provide clarification of assignment policies and practices?	<input type="checkbox"/>	()	()	()	()	()
b. did it give you an appreciation of SWO career paths and alternatives?	<input type="checkbox"/>	()	()	()	()	()
c. did it resolve some assignment problems you had?	<input type="checkbox"/>	()	()	()	()	()
d. was it conducted in an open and honest manner?	<input type="checkbox"/>	()	()	()	()	()
e. was it a useful and beneficial meeting?	<input type="checkbox"/>	()	()	()	()	()

VI. DECISION PROCESS

1. About how long prior to your PRD do you typically start--
 - a. thinking about your next assignment? _____ months
 - b. actively seeking advice from friends, peers, XO, CO, etc.? _____ months
 - c. communicating with your detailer? _____ months



8. For the following information sources, how much have you made use of them for career information and counsel:

	<u>Never</u>	<u>Rarely</u>	<u>Occasionally</u>	<u>Frequently</u>	<u>Consistently</u>
a. CO	()	()	()	()	()
b. XO	()	()	()	()	()
c. Department Head	()	()	()	()	()
d. Other senior officers	()	()	()	()	()
e. Other JO's	()	()	()	()	()
f. Detailers	()	()	()	()	()
g. Officer Personnel News Letter	()	()	()	()	()
h. Unrestricted Line Officer Career Planning Guidebook	()	()	()	()	()
i. Officer Billet Summary	()	()	()	()	()
j. Navy Times	()	()	()	()	()
k. Public media	()	()	()	()	()

9. When you are completing your Officer Preference Card, do you have a good idea of available billets for which you would be fully competitive based on your experience and past performance?

DEFINITELY NOT NO SOMEWHAT YES DEFINITELY YES

10. Do you feel the billets you have received are those in which you are fully competitive based on your experience and past performance?

DEFINITELY NOT NO SOMEWHAT YES DEFINITELY YES

APPENDIX B
CORRELATION MATRIX OF STUDY VARIABLES

Variables	1	2	3	4	5	6	7
1. Career Intent (Section III)	--	.266	.148	.150	.154	.154	.158
2. Predicted Officer Quality (Section II, Item 6)	.15*	--	.132	.133	.137	.137	.141
3. Informal Notification Time (1a)	.12	-.05	--	.149	.147	.146	.142
4. Formal Notification Time (1b)	-.02	-.01	.57**	--	.148	.149	.144
5. Satisfaction with Informal Notification Time (6a)	.17*	-.18*	.56**	.25**	--	.156	.150
6. Satisfaction with Formal Notification Time (6b)	.08	-.09	.57**	.30**	.88**	--	.150
7. Assignment Agreement (Current)--Location (8a)	.15*	.03	.20*	.02	.30**	.28**	--
8. Assignment Agreement (Current)--Billet (8b)	.12	.03	.13	.02	.13	.16*	.38**
9. Assignment Agreement (Current)--Activity (8c)	.12	.12	.22*	.10	.22*	.26**	.51**
10. Importance of Location--Current Assignment (9a)	-.06	-.06	.19*	.17*	.04	.00	.06
11. Importance of Billet--Current Assignment (9b)	.05	.21*	-.20*	-.12	-.11	-.05	-.09
12. Importance of Activity--Current Assignment (9c)	.03	-.15*	-.01	-.07	.05	.03	.03
13. Assignment Agreement (Future)--Location (10a)	.29*	.33*	.23	.12	.18	.24	.09
14. Assignment Agreement (Future)--Billet (10b)	.19	.60**	.21	.14	.11	.13	.17
15. Assignment Agreement (Future)--Activity (10c)	.16	.29	.11	.03	.09	.11	.22
16. Importance of Location--Future Assignment (11a)	-.01	-.17	.06	.00	.02	-.06	.04
17. Importance of Billet--Future Assignment (11b)	.27	.24	.14	.06	.06	-.04	-.04
18. Importance of Activity--Future Assignment (11c)	-.19	-.09	-.25	-.17	-.06	.10	.04
19. Overall Assignment Agreement (Current)	.15*	.08	.21*	.04	.27**	.26**	.77**
20. Knowledge of Available Billets (Section VI, Item 9)	.06	.09	.01	-.11	.02	.01	-.01
21. Overall Satisfaction with Assignments Received (18a)	.27**	.13	.12	.04	.13*	.21*	.35**
22. Appropriateness of Billets Received (Section VI, Item 10)	.24**	.13*	-.03	-.04	.01	-.05	.08
23. Evaluation of Assignment Process (12)	.20*	.03	.19*	.14	.43**	-.48**	
24. Detailer Interaction--Within P.D. Year (13a)	.15*	.19*	-.10	.00	-.22*	-.25**	-.13
25. Detailer Interaction--Otherwise (13b)	.03	-.05	.01	.05	.03	-.04	-.04
26. Effectiveness of Preference Card (15a)	.14*	-.04	.02	.01	.23*	.19*	.33**
27. Effectiveness of Letters (15b)	.14*	.11	.02	.06	.14	.07	.13
28. Effectiveness of Telephone Calls (15c)	.18*	-.07	.16*	.04	.36**	.26**	.12
29. Effectiveness of Personal Visit (15d)	.07	.04	.10	.12	.27*	.26*	.16
30. Detailer Evaluation--Interpersonal Skills (16)	.33**	.04	.16	.13	.42**	.31**	.22*
31. Detailer Evaluation--Formal Job Knowledge (16)	.00	-.06	.04	.00	.16	.10	.14
32. Officer Initiative--Assignment Search Timing (Section VI, Item 1)	.07	.11*	.02	.04	.02	.02	.06
33. Overall Satisfaction with Detailers (18, b-f)	.27**	.03	.18*	.07	.35**	.31**	.28**
34. Detailer Field Trip Evaluation (20)	.21*	.14	-.12	-.04	.04	-.01	.07
35. Use of Local Superiors (Section VI, Item 8)	.23**	.25**	-.02	.03	-.04	-.04	-.03
36. Use of Headquarters Sources (Section VI, Item 8)	.11*	.16*	-.14*	-.08	-.23*	-.24*	-.16*

Notes.

1. Correlations are reported below the diagonal; and sample sizes, above the diagonal.
2. Unless otherwise indicated, numbers in parenthesis are Section V item numbers.

* p < .05 (one-tail)
** p < .001 (one-tail)

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Table B-1
Correlation Matrix and Sample Sizes

		Matrix and Sample Sizes		Correlation Coefficients																					
		9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
		159	160	160	160	34	34	34	34	34	35	156	297	167	286	142	161	15							
		142	143	143	143	32	32	32	33	33	33	139	265	149	254	128	144	14							
		143	143	143	143	31	31	31	31	31	32	140	149	147	146	133	144	14							
		145	145	145	145	30	30	30	30	30	31	142	151	149	148	135	146	139							
		151	151	151	151	33	33	33	33	33	33	148	156	155	153	142	151	145							
		162	161	161	161	32	32	32	32	32	33	160	161	158	155	142	151	145							
		162	162	162	162	33	33	33	33	33	34	160	162	160	156	141	156	149							
		15	--	164	164	33	33	33	33	33	34	160	161	158	155	139	155	145							
		-.03	-.62**	--	164	33	33	33	33	33	34	160	162	160	156	141	156	149							
		.22*	-.48**	-.36**	--	164	33	33	33	32	32	160	163	160	157	141	157	151							
		.51**	-.08	.13	-.06	--	33	33	33	32	32	160	163	160	157	141	157	150							
		.45**	-.09	.25	-.18	.71**	--	34	34	31	31	160	163	160	157	141	157	151							
		.46*	-.13	.12	.00	.71**	.78**	--	34	31	31	31	33	34	34	34	34	32	33						
		-.22	.56*	-.25	-.30*	-.23	-.35*	-.41*	--	31	31	31	31	33	34	34	34	34	32	33					
		-.00	-.28	.44*	-.19	.18	.44*	.33*	-.46*	--	34	34	32	34	34	34	34	34	32	33					
		.21	-.22	-.22	.47*	.03	-.15	.02	-.42*	-.61**	--	33	35	35	35	34	34	34	32	33					
		.85**	-.07	-.03	.13	.38*	.48*	.42*	-.08	.03	.07	--	159.	157	153	139	33	33	33						
		.13	-.08	.00	.10	.34*	.14	.26	-.17	.04	.13	.07	--	159.	157	153	139	33	33						
		.47**	-.06	.07	.01	.41*	.38*	.28	-.06	.06	.23	-.15	.50**	.11	--	169	290	145	164	158					
		.37**	-.00	-.03	.06	.54**	.53**	.39*	-.07	.38*	-.29*	.28**	.20**	.47**	--	165	145	162	156	147					
		.44**	-.02	.04	-.09	.42*	.36*	.37*	-.09	.05	-.01	.51**	.14	.55**	.24*	--	169	290	145	164	158				
		-.11	.02	.10	-.13	.20	.20	.14	-.07	.31	-.19	-.16	-.08	-.08	--	165	145	162	156	147					
		-.06	-.04	.11	-.08	.06	-.03	-.06	-.25	.20	.02	-.07	.05	-.10	.02	--	165	145	162	156	147				
		.36**	.01	-.01	.00	.48*	.29	.36*	-.06	.06	.05	-.01	.51**	.14	.55**	.24*	--	165	145	162	156	147			
		.28*	.05	.02	-.03	.48*	.29	.36*	-.06	.06	.05	-.01	.51**	.14	.55**	.24*	--	165	145	162	156	147			
		.18*	.09	-.03	.31*	.25	.38*	.28	-.06	.08	-.03	.39**	.24**	.44**	.28**	.48**	--	165	145	162	156	147			
		.10	.11	-.17*	.04	.05	.16	.16	-.07	.03	-.01	.07	.16*	.03	.22*	.11	-.01	--	165	145	162	156	147		
		.25*	.12	-.09	-.03	.40	.11	.09	-.18	-.02	-.13	.17	.31*	.26*	.18	.35**	-.71**	-.07	--	165	145	162	156	147	
		.21*	.04	-.10	.07	.05	-.09	-.04	-.05	-.23	.36*	.30*	.12	.31**	.12	.55**	-.05	.18*	--	165	145	162	156	147	
		.12	-.15*	.05	.11	.03	.14	.07	-.19	.32*	-.15	.07	.05	.09	.16*	.05	.13	-.01	--	165	145	162	156	147	
		.33**	.10	-.03	-.09	.28	.24	.28	-.06	-.06	.13	.37**	.11	.46**	.18*	.60**	-.17*	.04	--	165	145	162	156	147	
		.07	.02	-.02	.00	-.02	-.08	.03	.16	-.15	.05	.05	.17	.23*	.14	.22*	-.15	.08	--	165	145	162	156	147	
		.07	-.32**	.24**	.12	.39*	.23	.23	-.46*	.05	.36*	.00	.18**	.06	.15*	-.05	.16*	.09	-.01	--	165	145	162	156	147
		.16*	-.02	.03	.01	.15	-.01	-.04	-.19	.03	.13	-.14*	.04	-.06	.10	-.15*	.11	.17*	.08	--	165	145	162	156	147

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
167	286	142	161	155	152	102	147	77	100	85	264	157	96	290	292
149	254	128	144	141	144	90	135	72	92	79	238	143	88	256	258
147	146	133	144	137	144	93	134	69	88	79	136	139	89	147	143
149	148	135	146	139	144	94	135	73	90	79	136	141	91	149	145
155	153	142	151	145	151	100	141	75	95	82	141	147	94	154	151
155	153	142	151	145	151	99	141	75	95	82	141	147	95	154	151
158	155	139	155	149	152	100	141	73	94	79	145	150	92	156	155
160	156	141	156	150	154	100	143	74	94	80	146	152	92	157	156
159	156	140	156	150	153	100	142	74	94	80	146	151	92	157	156
160	157	141	157	151	154	99	142	74	94	80	147	152	91	158	156
160	157	141	157	151	154	99	142	74	94	80	147	152	91	158	156
34	34	34	32	31	30	25	33	16	29	27	31	34	21	33	34
34	34	34	32	31	33	25	33	16	29	27	31	34	21	33	34
34	34	34	32	31	33	25	33	16	20	27	31	34	21	33	34
34	34	33	32	31	33	24	33	16	28	27	33	34	21	33	34
34	34	33	32	31	33	24	33	16	28	27	33	34	21	33	34
35	35	34	33	33	34	24	34	16	29	28	34	35	22	34	35
157	153	139	153	147	151	99	140	73	93	78	143	149	91	154	153
169	290	145	164	158	161	104	150	78	102	86	266	160	98	291	292
—	165	145	162	156	161	104	150	77	101	86	152	161	98	165	163
.47**	--	143	152	153	153	104	148	77	102	86	257	156	96	280	283
.55**	.24*	--	142	137	143	94	138	73	94	81	132	141	88	141	141
-.08	.13	-.20*	--	155	158	100	145	76	99	83	149	155	93	159	158
-.10	.02	-.01	-.01**	--	151	96	142	74	97	82	142	149	89	153	152
.44**	.28**	.42**	-.17**	-.07	--	102	148	77	100	94	147	134	95	157	156
.30**	.19*	.14**	-.11	-.11**	--	101	56	69	58	92	100	54	101	100	
.22*	.12	.11	-.03	-.03**	.43**	--	76	49	53	134	146	44	145	144	
.26*	.18	.05**	-.05	.05	.35**	.44**	.57**	--	55	48	65	76	49	76	75
.31**	.12	.55**	-.05	.18*	.37**	.50**	.36**	.44**	--	79	90	99	61	99	98
.19*	.10	.32*	-.11	.09	.44**	.25*	.21*	.37*	.67**	--	78	85	53	84	82
.09	.16*	.05	.13	.05	.00	.00	-.17*	-.07	-.08	.06	--	144	89	258	260
.46**	.18*	.60**	-.17*	.04	.40**	.47**	.47**	.48**	.70**	.55**	-.07	--	94	155	155
.23*	.14	.22*	-.15	.08	.22*	.49**	.21*	.40*	.46**	.51**	-.02	.55**	--	96	95
.06	.15*	-.05	.16*	.17*	-.06	.02	-.15*	-.02	.08	-.03	-.02	.06	.28*	--	286
.06	.10	-.16*	.11	.21*	-.06	.02	-.12	.04	.09	.05	-.05	-.01	.11	.36**	--

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